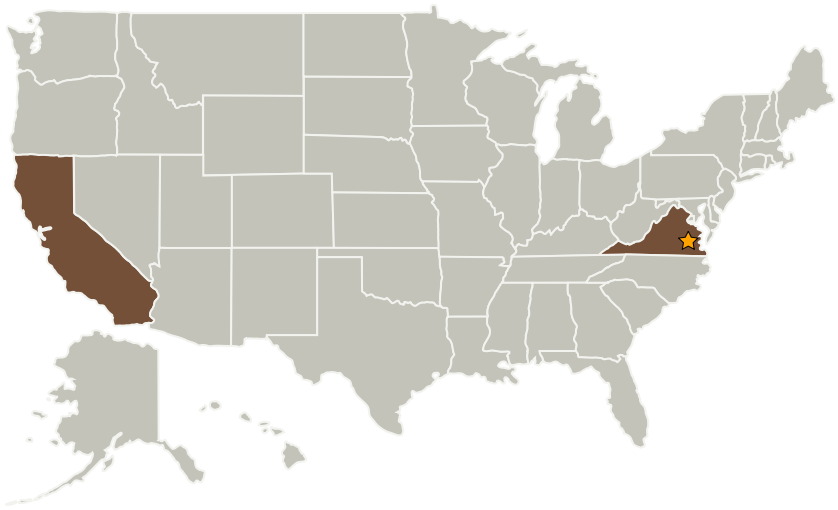
Personal Air Vehicle Research Project, Phase I

Completed Technology Project (2005 - 2006)

Project Introduction

The innovation is a low aspect ratio all-lifting configuration for personal air vehicles. This configuration uses an architecture fundamentally different from conventional aircraft to achieve large reductions in cost and improvements in safety. The concept features an integrated all-lifting body that performs the functions of the wing, tail and fuselage of a conventional light airplane with a single, simple structure. The integrated lifting body has an aspect ratio between approximately 1.0 and 2.5, and is deep enough to contain the crew and payload without a conventional fuselage. A further innovation is the use of a faceted shape composed of flat panels. The faceting greatly simplifies the manufacture of the major parts of the airframe, further reducing cost.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Langley Research Center(LaRC)	Lead Organization	NASA Center	Hampton, Virginia
H. D. Neubert & Associates, Inc.	Supporting Organization	Industry	Anaheim, California

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Langley Research Center (LaRC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Primary U.S. Work Locations	
California	Virginia

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Hans Neubert

Technology Areas

Primary:

- TX15 Flight Vehicle Systems
  - TX15.1 Aerosciences
    - TX15.1.6 Advanced Atmospheric Flight Vehicles